

REMARKS

A. Finality of the Office Action

As discussed during phone interviews with the Examiner on October 25, 2007, and October 30, 2007, Applicants respectfully request withdrawal of the finality of the anticipation and obviousness rejections of Claims 19-22, 28, and 33. In an Office Action dated April 25, 2007, Claims 24 and 26 were subject only to an objection and were otherwise clearly directed to allowable subject matter. Furthermore, Claim 25, although not explicitly identified as allowable, was not subject to a substantive rejection or objection, leading to the conclusion that Claim 25 should also be allowable subject matter. In accordance with a discussion with another Examiner who had been assigned to the application (but not the present, third Examiner assigned to the application), Applicants canceled Claims 24-26 and amended Claim 19 to incorporate limitations from groups Z², Z³, and Z⁴ of the canceled claims and to delete embodiments in which Z would be Z¹ (with appropriate correction of minor typographical errors having no substantive effect on the scope of the claims). The current Office Action relies upon a newly cited reference – a Korean language paper by Hahn et al, *Han'guk Nonghwa Kakhoechi* (apparently translated as *J. Korean Soc. Agric. Chem. Biotechnol.*), 44 (3), 191-196 (2001) – for anticipation and obviousness rejections for which Applicants has had no previous opportunity to address. Applicants therefore request withdrawal of the finality of the rejections. At the very least, Applicants request consideration of the enclosed Declaration of Dr. Ulrike Wachendorff-Neumann (one of the inventors) in their response to the rejections discussed below.

B. Amendments

Applicants have amended the paragraph represented by Table D to correct an inadvertent and obvious typographical error in the identification of Example 39 (instead of Example 36). The formula shown in Table D (biological data) matches the formula shown for Example 36 in Table 1 at page 59.

Applicants note that Claim 32 has not been rejected and thus assume that this claim is allowable. For the reasons discussed below, Applicants also respectfully submit that the claims under consideration are also allowable.

Applicants have amended Claim 19 to limit group Z³ to unsubstituted C₅-C₂₀-alkyl or to substituted C₁-C₂₀-alkyl having at least one chlorine and/or C₃-C₆-cyclo-

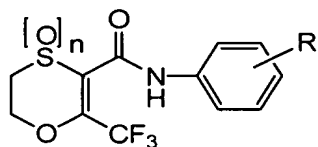
alkyl substituent. With respect to the narrowed range for unsubstituted C₅-C₂₀-alkyl, Applicants point out that it is well established that a broad range of numerical values disclosed in a specification can provide support for a narrower range falling within the broader range, particularly when end points of the narrower range correspond to specific values found within the specification. E.g., *In re Blaser*, 556 F.2d 534, 194 U.S.P.Q. 122, 125-126 (C.C.P.A. 1977) (disclosure of 60°C to 200°C and of an initial temperature of 80°C supports the claim limitation 80°C to 200°C), and *In re Voss*, 557 F.2d 812, 194 U.S.P.Q. 267, 272 (C.C.P.A. 1977) ("description of the range 20-100% ... would necessarily describe the range 50%-100% crystal content"), both cases citing with approval *In re Wertheim*, 541 F.2d 257, 191 U.S.P.Q. 90, 98 (C.C.P.A. 1976), *appeal after remand decided on other grounds*, 646 F.2d 527, 209 U.S.P.Q. 554 (C.C.P.A. 1981) (range 25-60% held to include narrower range 35-60%). Here, Table 1 (beginning at page 58) includes compounds in which the number of carbon atoms in the relevant alkyl group is 5 (see Examples 39, 51, 52, and 102), 6 (see Examples 3, 18, 50, 63, 76, 77, 82, 90, 94, 99, and 103), 7 (see Examples, 2, 4, 48, 54, 66, 81, and 88), 8 (see Examples 58 and 87), and 10 (see Example 42). The Examples provide test results for some of these compounds, including Examples 39 (5 carbon atoms), 18 and 82 (6 carbon atoms), and 2 and 54 (7 carbon atoms). Applicants therefore submit that the range C₅ to C₂₀ for the unsubstituted alkyl groups within the meaning of Z3 is appropriately supported by the specification in a manner consistent with the cited case law.

In view of the stated finality of the restriction requirement (see Office Action at page 2), Applicants have canceled Claim 29.

Rejection under 35 U.S.C. 102

Claims 19-22 and 28 stand rejected under 35 U.S.C. 102(b) as being anticipated by the Korean language paper by Hahn et al mentioned above. Applicants respectfully traverse.

Since Applicants do not have an English translation, they will base their arguments on the English language abstract (last page) and the disclosed formulas, as well as the summary provided in the Office Action at page 4. The Hahn et al paper discloses fungicidal dihydropyrimidin-1,4-dithiins of the formula



in which n is 0, 1, or 2 and R is one (and sometimes two) of a relatively narrowly defined group of substituents, including hydrogen, methyl, trifluoromethyl, ethyl, isopropyl, methoxy, isopropoxy, methylthio, fluoro, chloro, bromo, nitro, and cyano. See pages 194-195. The Hahn et al paper describes fungicidal activity for some of the disclosed compounds (see page 196) and indicates excellent activity for compounds that ^{are} meta-substituted with isopropoxy or isopropyl compounds (see English abstract, with apparent reference to compounds 21 and 40).

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Applicants submit that the Hahn et al paper does not teach or even suggest the compounds of their claimed invention. In particular, the Hahn et al paper does not disclose or suggest compounds corresponding to those of Applicants' invention in which Z is Z^2 or Z^4 . Even when substituents R^1 , R^2 , R^3 , or R^4 of Applicants' claimed compounds represent hydrogen, fluorine, chlorine, methyl, isopropyl, or methylthio (as also disclosed in the reference), nothing in the Hahn et al paper discloses or suggests compounds in which Z^3 can be an unsubstituted alkyl having at least five carbon atoms and nothing in the reference discloses or suggests compounds in which Z^3 can be an alkyl that must be substituted by chlorine or cycloalkyl.

Applicants therefore respectfully submit that their claimed invention is not anticipated by the Hahn et al paper.

Rejection under 35 U.S.C. 103

Claims 19-22, 28, and 33 stand rejected under 35 U.S.C. 103(a) as being unpatentable over the Hahn et al paper mentioned above. Applicants respectfully traverse.


For essentially the same reasons as discussed above, Applicants submit that the Hahn et al paper does not suggest their claimed invention. In further support of their position, Applicants submit a Declaration of Dr. Ulrike Wachendorff-Neumann showing the dramatic superiority in two test systems of a compound of Example 102 according to their invention in which the phenyl moiety is substituted with a pentyl group (more specifically, a 3-methylbutyl group) when compared to a corresponding

compound according to the Hahn et al paper in which the phenyl moiety is substituted with an isopropyl group. Applicants submit that nothing in the Hahn et al paper would suggest such enhanced activities for compounds having longer chain alkyl groups.

Applicants therefore respectfully submit that their claimed invention is not rendered obvious by the Hahn et al paper.

In view of the preceding amendments and remarks, allowance of the claims is respectfully requested.

Respectfully submitted,

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